

REAL ESTATE
AND BUILDING.

DALLAS REACHES
SEA BY A CANAL

Dams and Locks in Trinity
River Give Waterway.

MAKES FREIGHT RATE CHEAP

Water Transportation Between City
and Gulf Assures Expansion in
Cotton Raising—Coal Lies Along
Canal—Iron Ores Mined by Eco-
nomists Await the Smelter.

Dallas, Tex., July 3.—Dallas is the chief city of Texas, its metropolis and jobbing center, distributing annually \$120,000,000 of goods. Its position as the logical center of distribution in the Southwest has already been won, and its population, well over the 100,000 mark, four-fifths of whom are Northern born and bred, are now building for the future.

Transportation facilities have always been the great factor in making the city commercially, and despite the fact that Dallas has eight railroads, it long ago realized the fact that the most wealthy and powerful cities have grown up on the seaboard or on banks of navigable streams, and Dallas citizens began years ago to urge upon the Federal government the canalization of the Trinity River.

Starts as Local Enterprise.

One hundred and sixty thousand dollars was spent by Dallas business men demonstrating their faith in the practicability of the improvement of the Trinity River for navigation before the United States government undertook the surveys and marked the Trinity for canalization. Thus far \$1,000,000 has been appropriated for the building of five locks and dams and cleaning the river of obstructions.

The first lock and dam has been completed and the water backs up at the foot of Commerce street, within the city limits of Dallas, 150 feet wide and 11 feet deep. The other four locks and dams will be completed during this and next year and barges drawing six feet or more can run between Dallas and Galveston nine months in the year.

The Trinity River in the quality of land which it traverses and the territory which it traverses is different from any other Southern or Southwestern river. Nearly all other rivers in this section of territory, even if dug out with great width and depth, are subject to the danger of being filled by the constantly shifting banks of sand through which they go and the frequent sand storms which prevail in the South. The Trinity River is peculiar in that it traverses a territory which is known as the famous "Black Waxy Land Belt" of Texas, and in no place between Dallas and Galveston does it have banks or bottoms of sand.

If one would inspect the map, it can be seen that this canal extends at right angles to the Gulf of Mexico, penetrating the heart of the cotton and agricultural regions in the United States. The distance from its mouth to Dallas is 511 miles, and at Dallas it reaches the center of a section of country which it will directly benefit.

The territory immediately surrounding Dallas, of 100 miles radius, contains 2,000,000 people, 65 per cent of whom are Northern born and bred, men who have come to the Southwest, have established their homes and invested their capital. On account of the fertility of the soil in this territory and the undeveloped resources of this section it is the fastest-growing portion of the Southwest and as such the Trinity River will draw for the immediate section and save to its inhabitants large sums of money by means of water transportation.

Territory Which Is Benefited.

The 15,000,000 acres of land which is under cultivation in this section constitutes 42 of the 246 counties in Texas and is 38 per cent of the assessed valuation of the entire State, containing 30 per cent of the railroad mileage and 20 per cent of the total number of business houses. One-fifth of the cotton crop of the United States is grown in this section alone. Its population is energetic and enterprising, and the navigation of the Trinity River will give this territory superior advantages for manufacturing, trade from the outlet of the crops raised in this territory.

The fact that the Harriman and Hill systems of railroads are seeking connections for their interstate system to Galveston, appreciating the fact that the trade from the section west of the Mississippi River must eventually go by the Gulf of Mexico, further demonstrates the desirability of the Trinity River canal.

The wheat and corn grown in this territory and shipped for export will be brought 511 miles nearer water by the completion of the Trinity River canal. St. Paul and Minneapolis send their flour to Europe and Asiatic markets by rail and water by way of New York on the east, a distance of 1,600 miles, and to Seattle on the west, a distance of 1,500 miles. The cost to reach either the Atlantic or Pacific coast is 20 cents a bushel. The close proximity of Dallas to the coast when the Panama Canal is completed should, by reason of having a cheap water route, promote the establishment of flouring mills in Southwest territory that raises wheat and enable this territory to put flour into Asiatic markets at 60 cents a barrel and into European markets at 20 cents a barrel.

Cheaper Rates for Cotton.

Northern and Central Texas and Oklahoma is the greatest cotton-producing section in the world and alone of all the cotton-producing sections of this country has no water route to seaboard. The opening of this river to navigation from Dallas to the Gulf will not only furnish a cheaper freight transportation to the South and to the seaboard, but it will afford cheaper transportation to the East and North, where are located manufacturing centers and populous cities, the necessities of which create a constant demand for our cotton and stock, and with a cheaper transportation will demand our grain.

The plans of the engineers for the improvement of the river are for locks 50 by 170 feet in the clear, so that boats drawing six feet can pass through at low water. This will allow barges of twenty-five feet beam drawing six feet to carry 500 tons dead weight.

The climate and weather conditions will not interfere with the boats running during any part of the year; but granting that only ten trips a season can be made, figured on a basis of transporting cotton, a season's shipment for one barge line would be equal to 120,000 bales, the transportation cost being 10 cents a bale. Compare this price with the present cost on a bale of cotton from Dallas to Gal-

vaston by rail of \$1.35. The saving to cotton growers in freight would be \$10,000,000; and granting that this territory produces and ships (as it does) one-fifth of the cotton crop of the United States and that it all moved by the Trinity River, even placing it as low as 2,000,000 bales, the saving to this section of freights alone would be \$2,000,000 a year.

Will Open Timber Lands.

The actual tonnage statistics for what will move via the Trinity River Canal are practically impossible to gather, but the United States government engineers in recommending the improvement of the Trinity River stated that there were (at a rough estimate) 2,000,000 acres of hardwood timber of a great many varieties which could only be marketed on a water route and which was chiefly located along the line of the Trinity River. The value of this timber standing, at a low estimate, is \$50,000,000. It will cut not less than 5,000 feet of sawed lumber to the acre and some of it as much as eight or ten times that amount. It will, therefore, produce 10,000,000,000 feet of sawed lumber, which if cut at the rate of 500,000,000 feet annually would require twenty years to exhaust it.

The engineer's report also shows that beginning 125 miles by river (which is about 70 miles in a straight line) below Dallas that brown or lignite coal is found outcropping in more than twenty places along the banks in veins of from three to twelve feet in thickness. The report states that for 80 miles bordering on the river and extending inland into Henderson and Anderson counties immense deposits of brown hematite and laminated iron ore are found carrying 5,000,000 tons to the square mile.

Mined by Natural Erosion.

State geological reports say in regard to these ores that the enormous erosion which this region has undergone has been the means of removing the soft underlying sands and allowing the ore blocks and fragments to fall down along the sides of the hills, until now this accumulation forms deposits of ore many feet in thickness, which will require years of steady mining to remove before the ore beds now in place will have to be touched.

It may be estimated that within this ore field each square mile carries 1,000,000 tons of ore. This means that the iron ore is already mined, lying practically on top of the ground, ready to be loaded and shipped to the smelter. Specimens of this ore collected in the field give an analysis of 48 to 54 per cent of pure metallic iron, with a slight trace of phosphoric acid.

The canalization of the Trinity River is an accomplished fact. The first lock and dam has been since the first of June, 1909, closed after the most exhaustive tests in regard to physical condition, water supply, and all the facts in regard to flood stages, and so on, have been ascertained by the Federal government. The demonstration of the practicability of this long-deferred project has now been done and it only remains to carry out the balance of the work, which will be rushed to completion.

J. R. BARBOCK,
Secretary Chamber of Commerce.

SOUTHWEST HOGS HEALTHY.

Live in the Open and Are Entirely Free from Tuberculosis.

A circular recently issued by the Department of Commerce and Labor shows that the hog in the Southwest is entirely free of tuberculosis. Another satisfactory report made is that only 2 per cent of the hogs in the United States are affected by the disease. The report points out that Texas, Oklahoma, and Arkansas hogs are not susceptible to this disease, because they are kept in the open for the greater part of the year and are hardly ever confined.

Another reason for the absence of the disease among hogs in the Southwest is that the animal in that part is not subjected to a rigorous climate. Lung fever is practically unknown, the weather being never cold enough to permit the development of this disease. February and March, when many hogs in the Northern States succumb, are very mild in the Southwest.

IRON ORES OF VIRGINIA

Report Issued by the United States Geological Survey.

Brown Ores of Three Varieties and Hematite of Two Kinds in Old Dominion.

The Geological Survey's bulletin entitled "Contributions to Economic Geology for 1908, Part I," contains a preliminary report on the iron ores of the Appalachian region in Virginia, by E. C. Harder.

The report outlines briefly the iron ores of Virginia according to classes and districts, contains a short review of the iron ores of the Piedmont region, and describes in some detail the iron ores of the Appalachian region.

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VIEWS AT DALLAS, TEX., AND IN TRINITY RIVER.



Row of residences.



Buildings at Fair Grounds.



Lock and Dam No. 2.



Lock and Dam No. 1.

OPENS A NEW FIELD POTENTIALITIES OF SOUTHERN STATES WAURIKA DOES WELL

Telephone Gives to Railroad Men Better Chance.

SUPPLANTS TELEGRAPH KEY

Illinois Central Installs New System, and Way Is Made for Promotions Without Knowledge of the Code. Eliminates Technical Knowledge in Train Dispatcher's Office.

Chicago, July 3.—A broader field for promotion in the railway service will be opened by the substitution of the telephone for the telegraph in the operation of trains on the Illinois Central system. Heretofore one of the best stepping stones in railway service was the telegraph key. Trainmasters, division superintendents, and other officers usually came up through the avenue of the telegraph key, but the goal was difficult to reach because of the technical knowledge necessary to be an operator. While this branch of the service has and does embrace a fine class of men, their technical advantage has made it difficult for those not understanding the click of the key to make much headway.

Eliminates Technical Knowledge.

Operating trains by telephone eliminates the long course necessary to master the mysterious language of the telegraph. Any man of average intelligence will be capable of receiving and transmitting over the telephone orders for the operation of trains and messages in connection with traffic. This opens the field to clerks, engineers, conductors, and any others who may demonstrate their ability to handle trains and otherwise transact the business of the railroad at different points.

Heretofore other employees of a railroad, on account of their ignorance of telegraphing, have been barred from such work and by reason of this handicap otherwise intelligent trainmen and others were prevented from stepping to higher positions in the transportation service. The telephone now opens the entire railway world to anybody who can prove they have a brain, educated fingers being no longer a test.

Shortage Among Operators.

During busy seasons every railroad of importance in the country has been short of telegraph operators, and there has been a daily demand all the way from 25 to 100 on each system. As traffic could not be moved without the services of these men the officers could not always inquire too closely into the characters of the picks-up, their ability as operators being the major test. This resulted in the forced temporary employment of many unfit telegraphers.

In one instance last fall where there was a jam on and extra operators were imperative, a recruit was sent to a station near Chicago. The same night this man, though a good operator, broke into the station safe, stole \$150, and skipped. Required technical knowledge in the past has made such cases possible.

Under the new system telegraph operators of ability and character have nothing to fear as the Illinois Central is retaining all of these men, merely turning the telephone over to them instead of the key. Railroaders by telephones is also less of a physical strain than by telegraphing.

OTHELLO F. ANDREWS.

The rehabilitation of the South is the most stupendous event in the history of our times.

Fifty years ago this great section presented a scene of desolation which cannot be pictured in words. With the groans of the dying heard throughout the land were mingled the lamentations of those whom death robbed. From hills and valleys the smoke of burning homes had not vanished. The plow stood idle in a barren furrow, while children were crying for bread. The pandemonium of reconstruction was still to follow, and the broken spirit of the people to suffer its bitterest humiliation.

It has been remarked that from this chaos there emerged triumphantly the boy and the mule to save the country. Silently and without enthusiasm the work of rehabilitation was begun. The task was one which called for more courage and endurance than did war, but the boy and the mule stood by their post, and finally the men took heart.

In a few years the South had again regained control of the cotton market. The Southern States were discovered to stimulate cotton production in Egypt, Brazil, Italy, and other countries, so as to make her factories independent of the Southern supply. New uses of cotton seed and their by-products were discovered by the Southern farmer, adding millions annually to the value of the crop. New industries sprang up, and agricultural, heretofore undiscerned were now seen, as through a glass darkly, it is true, but with sufficient clearness to infuse hope into the work of reconstruction.

By 1880 the South was well along the way of that industrial development which has since continued uninterrupted and in ever increasing measure. Since that year the true value of her property has increased 167 per cent, and the expenditure of her common schools 285 per cent. The value of her farm products has increased 237 per cent since 1880, and the growth of her textile industries is to be measured by an increase in capital invested in cotton mills of 114.9 per cent. In Southern manufactures \$2,100,000,000 is invested. The fruit and vegetable industry, as yet in its infancy, last year added over \$100,000,000 to her treasury. Southern coal and iron supplies are the richest in the world, and the forested area of the South is seven-tenths of the forested area of the United States.

If the progress of the South is told in big figures, its potentialities are more larger still, and must prove inspiring to every man and woman who learns them. Because the story of the South's resources and development has never been presented fully by any newspaper, The Washington Herald announces a series of articles on these subjects by S. A. Armstrong, a young writer whose work is identified with those factors that are working for the upbuilding of the section. The series will describe the industries upon which the new South is built, and will present the progress and potentialities of the Southern States along industrial, agricultural, and commercial lines.

BAUXITE MINED IN SOUTH

It Is Produced in Commercial Quantities in Four States.

From It Is Manufactured Aluminum, the Chief Factory Being at Niagara Falls.

In the last issue of the Southern Progress Section appeared an article on the uses of aluminum and the principal places of its manufacture, with some data with reference to the product and its value. In that article it was made plain that the metal aluminum is worth about \$40 a ton. Aluminum is derived from bauxite, which is mined exclusively in the Southern States. The ores are sold at less than \$5 a ton.

From the advance sheets of the chapter "Mineral Resources of the United States in 1905," to be published by the Geological Survey, appears the following regarding the production of bauxite: The production of bauxite in the United States in 1905 amounted to 52,167 long tons, valued at \$263,368, a decrease of 6,609 tons, or nearly 47 per cent in quantity, and of \$216,362, or 45 per cent in value, as compared with the production of 1907. The average price of the material at the mines was about \$5.08 long tons, in advance of 15 cents over the price in 1907.

The list of States producing bauxite on a commercial scale remains as in 1907. These States are Alabama, Arkansas, Georgia, and Tennessee. As in past years, Arkansas leads in production with an output of considerably more than 60 per cent of the total. The actual production of this State, however, fell off about 43 per cent, and that of Georgia and Tennessee also decreased; the production of Alabama increased.

Taking into account the fact that aluminum is manufactured chiefly at Niagara Falls, N. Y., the remark of Dr. C. W. Hayes before the Southern Commercial Congress is pertinent. He said: "Mineral deposits are potentially rather than actually valuable and their full value is secured only in so far as they form the basis for local industries, while to export the raw material means impoverishment."

Club Prepares for Banquet.

Savannah, Ga., July 3.—Arrangements have been completed for the banquet of the Don't Worry Club, an organization started among and perfected by the traveling men of this city. The banquet will be held at Tybee Hotel on July 5, and the Hon. Alf Herrington, of Swainsboro, will make the address. The club has a membership all over the State.

PLAN IRRIGATION PROJECT

Will Confine Flood Waters of Rio Grande for the Purpose.

Build 250 Dwellings.

That 250 dwelling houses have been erected; that brick business buildings have been added on Main street—costing \$100,000; that three and one-half miles of concrete sidewalk have been completed or is under construction, all walks on the business streets being fourteen feet wide. "Within the year a new electric light plant, costing \$30,000, a forty-ton ice plant, costing \$20,000, a cement block and tile plant; one large ten-room schoolhouse, with contract let for another similar building with twelve rooms, have been erected. That the telephone exchange has been remodeled, having over three miles of cable in the city. That three new churches have been organized in good buildings.

That five new grocery stores, five dry goods stores, two pool halls, two restaurants, two hotels, one bottling works, one newspaper office have been installed. That a bridge costing \$5,000 has been built in the city limits. That Waurika has gained in population 1,500. That the city council is preparing to erect ten blocks of street paving. That the town has a modern water and sewer system."

This affidavit is signed by Rex Lund, president board of trustees; J. L. Morgan, postmaster; W. H. Diver, trustee; H. W. Lemons, president. First State Bank; Williams Anderson, vice president. First National Bank; Wade Atkins, president. Waurika National Bank; J. S. Lang, member board of trustees; P. F. Dawson, capitalist, and W. T. P. Bush, member executive committee chamber of commerce.

Building a Sanatorium. In addition, the contract has just been let for a new \$12,500 private sanatorium. Contract has also been let for sinking three deep wells prospecting for oil and gas. Contract has been signed with the Frisco Railroad for the extension of its road from Ardmore, through Waurika, to Byers, Tex. Contract has also been signed with the Oklahoma City authorities for the extension of the M. K. & T. from Oklahoma City, through Waurika, to Wichita Falls, Tex. With these roads built Waurika will have seven railway outlets, making it one of the great distributing points of this part of the Southwest.

Planned with the Trip. Norfolk, Va., July 3.—General Manager E. T. Lamb, of the Norfolk and Southern Railway, and the party of the road's officials who went on an inspection trip of the properties about a week ago, have returned much gratified with the trip. The party went over the entire route on a special car, taking in every phase of the road's condition and it is stated by several of the officials that the business through North Carolina, notwithstanding the wet spell, has been unusually good and that a fine prospect is being held out for the shipment of large quantities of truck and merchandise.

Vacations for Postmasters. Postmaster General Hitchcock has granted postmasters of Mississippi, Louisiana, and Alabama leaves of absence to enable them to attend the annual meeting of the Mississippi Association of Postmasters and general postal convention, to be held at Biloxi, Miss., beginning August 15.

COMMERCE
AND INDUSTRY.

SOUTH OF TO-DAY
AND THE FUTURE

Great Progress Going on in
Famed Dixie Land.

COTTON IS ITS LARGEST ASSET

Forests Bring Wealth, Mineral Resources Promise Command of the Manufacturer, and Fruit and Truck Become a Source of Revenue—Industry Yet in Its Infancy.

The world faces South to-day. The story of the commercial and industrial progress made in recent years by the section south of Mason and Dixon's line reads like some dazzling romance. The yet vaster potentialities of this section make a modern fairy tale which outstrips the imagination of a Munchausen.

In Maryland, Alabama, the Virginias, Kentucky, and Tennessee, thousands of square miles of rich coal and iron lands, exceeding in area those of Great Britain, France, Germany, and Russia combined, await the magic wand of capital and enterprise, and already Alabama names the price of pig iron to the world. The forest wealth of the South is seven-tenths of that of the entire United States.

Thousands of acres of land in the great Southwest which have as yet never been touched by the plow, are capable of yielding millions worth of produce. Time was when cotton was the only thing in the South, but now numbers of other agricultural interests, still in their infancy, are already commanding royal tribute in dollars and cents.

Fruit Brings Profit.

Last year the fruit and vegetable industry of the South netted that section a neat \$150,000,000 pocket change.

Thriving towns in Mississippi, Louisiana, and Texas owe their existence to the rice industry. In South Carolina the picking of strawberries alone requires each year 100,000 men, women, and children. Kentucky and other States contribute 600,000,000 of the 800,000,000 pounds of tobacco grown in America.

Georgia has eight of the nine different climate belts which the Department of Agriculture has named in this country, and there is hardly a fruit, vegetable, or other agricultural product that cannot be profitably grown in her broad fields. In Florida, \$1,000 worth of tobacco may be grown annually on a single acre of land, and twelve acres in celery has been known to produce a crop worth \$20,000. In North Carolina recently the price of \$10.00 was refused for a lettuce patch of fifteen acres!

An unsurpassed water power, estimated between 2,000,000 and 5,000,000 horsepower, when developed, will manufacture cloth in the midst of the cotton field, and the wealth of the South as an agricultural region will be increased almost beyond credulity by its wealth as a manufacturing region. Already the products of Southern factories have reached large figures.

When the inland waterways of the Gulf States are developed, a net work of rivers will afford to the produce of land and the output of factory transportation to magnificent ports strung like pearls along the Gulf coast. And as the crowning climax in the commercial evolution of the South, the completion of the Panama Canal will make these ports, Pensacola, New Orleans, Mobile, Gulfport, Galveston, and others, the trade centers of the world.

Cotton the Great Asset.

It would be easy to enumerate indefinitely the coal, iron, mineral, timber, and agricultural resources of this land of promise, but these may truly be said to be only incidentals in the sum of its vast wealth. Cotton is the South's great asset, an asset on which she holds practically a world monopoly. In South America and the Orient the staple grows only in limited quantity and inferior quality, and it is the Southern States that produce the crop upon which the trade of the world is built. The crop of 1907 was valued at \$715,000,000, of which \$400,000,000 worth was sold to Europe.

The cotton industry is still in its infancy, and the South is a great extent, any industry in the world to-day. When the South manufactures cotton on the field of production; when millions of dollars now wasted in loose methods of planting, hoeing and ginning are saved, and every acre is made by scientific cultivation, to double its present yield, the Southern farmer will hold the purse strings of the world.

Progress in Education.

The educational progress of the South has been in no sense commensurate with the development of the section along the lines of commerce and industry. Yet the educational renaissance now stirring at the heart and conscience of the Southern people is one of the most interesting phases of Southern development. In addition to the problem of negro education, and there are now over 2,500,000 negro children in the common schools, the South faces a problem more grave and equally expensive.

This is the task of removing the stain of total illiteracy from its thousands of mountain whites, who, though the purest Anglo-Saxon stock on American soil, are dwelling in the remoteness of the mountains in poverty and ignorance more appalling than any which ever held in thrall the negro race.

Again, educational problems are intensified by the fact that the rural districts of the South are still, to a great extent, undeveloped, and sparsely settled. In view of these and other difficulties, the Southern States are expending 65 per cent of their revenues on education, and compulsory education is coming to the front as an issue in many legislative bodies.

Leads in Reforms.

Along the lines of reform and human betterment the conscience of the South is particularly alert. The most spectacular reform movement ever launched in America is the experiment in prohibition now being made by the Southern States. A solid area of 252,835 square miles, with a population of 9,510,734 souls is under prohibition government in the South, and even twelve years permit the sale of liquor prohibition prevails, to a large extent, by local option. South Carolina

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